

REMARKS

Claims 1, 3, 4, 33, 35, 36 and 38-44 are pending in the application.

Claims 1, 36 and 39-44 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rubenstein (U.S. 6,264,625) in view of Berglund (U.S. 4,416,657) and further in view of Buchwald (U.S. 4,610,658).

Claim 33 has been rejected as being unpatentable over Rubenstein in view of Berglund and Buchwald and further in view of Burbank (6,193,684).

Claim 35 has been rejected as being unpatentable over Rubenstein in view of Berglund and Buchwald and further in view of Gorsuch (U.S. 5,980,478).

Claims 3, 4 and 38 have been rejected as being unpatentable over Rubenstein in view of Berglund, Buchwald and further in view of Treu (U.S. 6,254,567).

With this response, claims 1, 3, 4, 33 and 43 are amended and claim 41 is canceled.

The § 103 Rejections

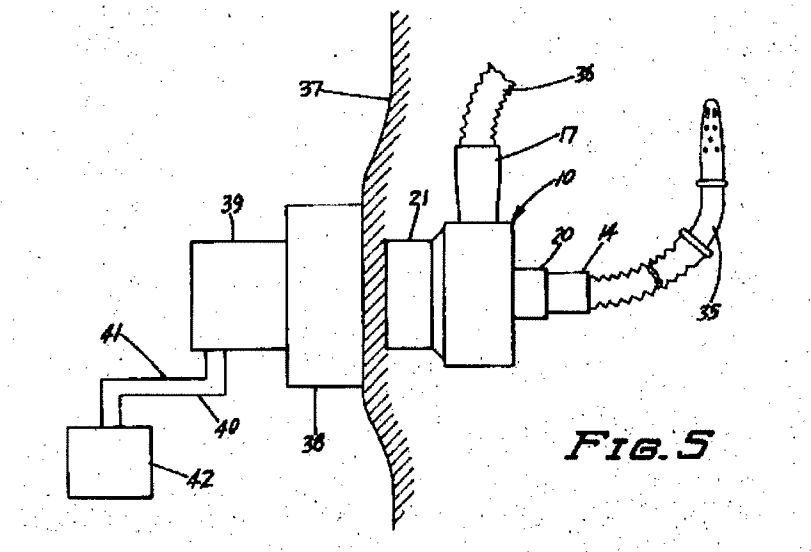
Claim 1 has been amended to recite “an implantable pump having ... a ***circumferentially-coupled magnetic drive system***, the implantable pump ***configured to be implanted subcutaneously in a peritoneal cavity so that a portion of the magnetic drive system partially protrudes from the peritoneal cavity***” and an “external control module [that] ... include[es] ***a recess that accepts the protruding portion of the magnetic drive system*** to permit the external control module ***to circumferentially engage and magnetically couple to the protruding portion of the magnetic drive system.***” Support for these amendments is provided in FIG. 13 of the application and the accompanying portions of the written description, including paragraphs [0032] and [0064] of the published application. No combination of Rubenstein, Berglund, Buchwald, Burbank, Gorsuch or Treu suggests the claimed invention.

Instead, as acknowledged at page 3 of the Office action, the ***only portion*** of the Rubenstein that “protrudes” from the peritoneal cavity is “one of the tubes that extends across the wall of the peritoneal cavity.” The Office action further states that “although the pump is not located in and protruding from the peritoneal cavity, the shunt serves the same purpose” and that “the exact location of the pump on the shunt is not important to the overall function of the device.” While applicant disagrees with the Examiner’s analysis as applied to the previously pending version of claim 1, applicant submits that no amount of hindsight could transform the

shunt in Rubenstein into the structure recited in amended claim 1. Rubenstein does not show a pump having any sort of external control module that is magnetically-coupled to a pump magnetic drive system, much less one that partially protrudes through the patient's skin so that it can be coupled to an external control module having a recess that accepts the protruding portion of the magnetic drive system to circumferentially engage and magnetically couple to the magnetic drive system. As further acknowledged in the Office action, Rubenstein “does not [even] teach that the external control module comprises a plurality of magnetic arms that are configured to circumferentially engage the protruding portion of the pump...”

Berglund teaches nothing meaningful with respect to the above limitations of amended claim 1. Instead, Berglund discloses a pump-less shunt.

Buchwald also does not teach or suggest anything that would lead one of ordinary skill in the art to modify Rubenstein to arrive at the invention recited in amended claim 1. Buchwald discloses a magnetically-coupled pump having a reciprocating (FIG. 1) or rotary (FIG. 8) drive system. Buchwald's rotary drive system of FIG. 8 is axially coupled – not circumferentially coupled – to an external drive unit. In particular, Buchwald references U.S. Patent No. 3,608,088 to Dorman et al. (“Dorman”) as providing an exemplary embodiment of a suitable rotary magnetic drive. As shown in FIG. 5 of Dorman (reproduced below), the external drive unit *sits flush on top of the implantable unit*.



Accordingly, neither Buchwald nor Dorman (nor any of the other prior art of record) teaches or suggests “an external control module [that] ... include[es] **a recess that accepts the protruding portion of the magnetic drive system** to permit the external control module to

circumferentially engage and magnetically couple to the protruding portion of the magnetic drive system.” Absent hindsight gleaned from applicant’s disclosure, there is simply no basis for suggesting that one of ordinary skill in the art would have modified Buchwald (and Dorman) to arrive at the invention recited in claim 1.

Moreover, contrary to the suggestion at page 5 of the Office action, it is not the mere presence of similar *functionality* in the prior art that renders a claimed invention obvious, rather, there must be some motivation or suggestion, somewhere in the prior art, to modify the prior art device to arrive at the claimed *structure*. Applicants respectfully submit that MPEP § 2144.04 – which is liberally cited throughout the Office action – *refutes*, rather than supports the Examiner’s contention:

"The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. ***The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device.***"

Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984)(emphasis added).

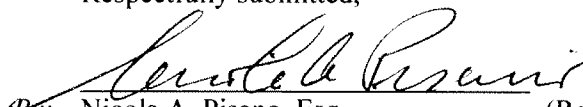
Comparison of FIG. 13 of the instant application to FIG. 5 of the Dorman, above, suggests several advantages to the claimed structure, including: reduced overall height of the implantable pump; reduced risk of damaging the tissue captured between the axially-aligned magnets; increased separation between the poles of the magnets in the implantable component; and better registration between the magnets located in the implantable pump and those arranged on the external control module. All of these advantages permit faster and stronger circumferential magnet interaction, with less risk of injury to the intervening tissue, than the previously-known devices. Thus, the contention set forth in the Office action that applicant’s invention “does not provide any additional functionality over Buchwald’s system” is both legally irrelevant and factually incorrect.

None of Burbank, Gorsuch or Treu provide such teaching or motivation either. Accordingly, applicant respectfully submits that neither claim 1, nor any claim depending therefrom, is rendered obvious over any combination of Rubenstein, Berglund, Buchwald, Burbank, Gorsuch, and/or Treu. Applicants respectfully request the Examiner to withdraw the rejection and allow the claims to issue.

A petition for a two-month extension of time accompanies this response, the fee for which will be paid via EFS-Web. No other fees are believed due at this time. However, please charge any required fees, or credit any overpayments, to Jones Day Deposit Account No. 50-3013.

Respectfully submitted,

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